

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the present application are respectfully requested in view of the amendments and remarks presented herewith. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-15, 17, 19 and 21-28 are pending in this application. Claims 1, 6, 7, 10, 11, 14, 15, 17, 19 and 21-28 are independent. Claims 7, 10, 11, 14, 17, 19, 23, 24, 26 and 27 are hereby amended in this response. Support for this amendment can be found throughout the specification as originally filed. No new matter has been added.

II. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-9 and 22-24 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over U.S. Patent 6,522,672 to Matsuzaki et al. (hereinafter, merely “Matsuzaki”) in view of U.S. Patent No. 5,892,894 to Shiroshita et al. (hereinafter, merely “Shiroshita”).

Claims 10-14 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Matsuzaki in view of Shiroshita and further in view of U.S. Patent No. 5,801,753 to Eyer et al. (hereinafter, merely “Eyer”).

Claim 1 recites, *inter alia*:

“An information transmitting apparatus which transmits a plurality of signals, said signals including at least video signals and audio signals, to an information receiving apparatus, said information transmitting apparatus comprising:

...control means for controlling a multiplexing ratio among the plurality of signals in the second multiplexing means, controlling a video data occupation bandwidth, an audio data occupation

bandwidth, and a program data occupation bandwidth in relation to a transmission channel bandwidth,

wherein the information receiving apparatus reads contents of a program information data of a current program and a next program at a re-transmission cycle of the program information data of the current program and the next program, and recognizes a transmission status of the program information data indicating broadcast schedules, and

wherein said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased.”
(emphasis added)

As understood by Applicants, Matsuzaki relates to multiplexing a plurality of types of media information and outputting a multiplexed bit stream, deciding priority corresponding to each of the media information, and controlling multiplexing of each of the media information based on the decided priority.

As understood by Applicants, Shiroshita relates to a data re-transmission management scheme capable of improving the communication efficiency. In a data re-transmission from a server to a plurality of terminals through a communication network, any abnormal terminal including a busy terminal and/or a poor performance terminal among the plurality of terminals is detected, and each abnormal terminal is managed separately from other normal terminals. A management of data transmission and re-transmission from the server to the normal terminals is carried out first, and then a management of a re-transmission of only unreceived data of each abnormal terminal is carried out, after a completion of the data transmission and re-transmission with respect to the normal terminals.

As understood by Applicants, Eyer relates to an interactive program guide implemented over an information network.

It is respectfully submitted that the applied combination of Matsuzaki and Shiroshita does not teach the above-recited features of independent claim 1. Specifically, the Office Action states that "Matsuzaki further teaches that said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased... Therefore, if audio and video data have a low priority and program information has a high priority, more program information will be transmitted, thereby increasing the transmission rate of the program." (See Office Action pages 3-4).

The Office Action cites Column 2, lines 26-28, lines 35-39, lines 65-66; Column 3, lines 1-4; Column 4, line 63 - Column 5 line 3 of Matsuzaki, which state "...multiplexing the information according to the priority therein... a priority deciding means for deciding priority corresponding to each of the media information, and a multiplexing controller for controlling multiplexing of each of the media information according to the priority decided... multiplexing according to the priority for each encoded bit stream 75 in a case where there is a limitation in a bit rate per media multiplexed bit stream 76...".

Applicants submit that multiplexing the information according to the priority corresponding to each of the media information, and a multiplexing controller for controlling multiplexing of each of the media information according to the priority decided, then multiplexing according to the priority for each encoded bit stream in a case where there is a limitation in a bit rate per media multiplexed bit stream as disclosed in Matsuzaki provides no suggestion of controlling said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased.

Therefore, Applicants respectfully submit that nothing has been found in Matsuzaki and Shiroshita, taken alone or in combination, that would teach or suggest the above-identified features of independent claim 1. Specifically, Applicants submit that there is no teaching or suggestion of an information transmitting apparatus which transmits a plurality of signals, said signals including at least video signals and audio signals, to an information receiving apparatus wherein said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased, as recited in claim 1.

Therefore, Applicants respectfully submit that claim 1 is patentable.

Independent claims 6, 7, 10-11, 14 and 22-24 recite similar features and are therefore patentable for similar reasons.

Claims 15, 17, 19, 21 and 25-28 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,111,612 to Ozkan et al. (hereinafter, merely “Ozkan”) in view of Eyer, in further view of Matsuzaki and further in view of Shiroshita.

Claim 15 recites, *inter alia*:

“An information receiving apparatus which receives multiplexed program information that is comprised of a plurality of multiplexed pairs of encoded signals, each pair of encoded signals having one encoded video signal and one encoded audio signal, said information receiving apparatus comprising:

...control means for controlling a data acquisition time and for controlling operations of the separating means and the storing means in accordance with a transmission rate of the program information and the data acquisition time,

wherein the information receiving apparatus reads contents of a program information data of a current program and a next program at a re-transmission cycle of the program information data

of the current program and the next program, and recognizes a transmission status of the program information data indicating broadcast schedules, and

wherein said control means enables acquisition of program information in a reduced period of time by increasing reception of program data when transmission of video data and audio data have been decreased.” (emphasis added)

As understood by Applicants, Ozkan relates to packetized video program information used in video processing and storage medium formats that includes program related text messages.

It is respectfully submitted that the applied combination of Matsuzaki, Shiroshita, Ozkan and Eyer does not teach the above-recited features of independent claim 1. Specifically, the Office Action states that “Matsuzaki further teaches that said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased... Therefore, if audio and video data have a low priority and program information has a high priority, more program information will be transmitted, thereby increasing the transmission rate of the program.” (See Office Action pages 3-4).

The Office Action cites Column 2, lines 26-28, lines 35-39, lines 65-66; Column 3, lines 1-4; Column 4, line 63 - Column 5 line 3 of Matsuzaki, which state “...multiplexing the information according to the priority therein... a priority deciding means for deciding priority corresponding to each of the media information, and a multiplexing controller for controlling multiplexing of each of the media information according to the priority decided... multiplexing according to the priority for each encoded bit stream 75 in a case where there is a limitation in a bit rate per media multiplexed bit stream 76...”.

Applicants submit that multiplexing the information according to the priority corresponding to each of the media information, and a multiplexing controller for controlling multiplexing of each of the media information according to the priority decided, then multiplexing according to the priority for each encoded bit stream in a case where there is a limitation in a bit rate per media multiplexed bit stream as disclosed in Matsuzaki provides no suggestion of enabling acquisition of program information in a reduced period of time by increasing reception of program data when transmission of video data and audio data have been decreased.

Therefore, Applicants respectfully submit that nothing has been found in Ozkan, Eyer, Matsuzaki, or Shiroshita, taken alone or in combination, that would teach or suggest the above-identified features of claim 15. Specifically, Applicants submit that there is no teaching or suggestion of an information receiving apparatus which receives multiplexed program information that is comprised of a plurality of multiplexed pairs of encoded signals, each pair of encoded signals having one encoded video signal and one encoded audio signal wherein said control means enables acquisition of program information in a reduced period of time by increasing reception of program data when transmission of video data and audio data have been decreased, as recited in claim 15.

Therefore, Applicants respectfully submit that claim 15 is patentable.

Independent claims 17, 19 and 25-28 recite similar features and are therefore patentable for similar reasons.

III. DEPENDENT CLAIMS

The other claims are each dependent from one of the independent claims discussed above and are therefore patentable for at least the above-identified reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are in condition for allowance and Applicants respectfully request early passage to issue of the present application.

In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosures in the cited references, it is respectfully requested that the Examiner specifically indicate the portions of the reference, or references, providing the basis for a contrary view.

Please charge any fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,

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